# SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5038ML-H8TRF
(X10SLD-F single node, Intel Xeon E3-1281 v3)

$SPECint^{®}2006 =$ 65.0

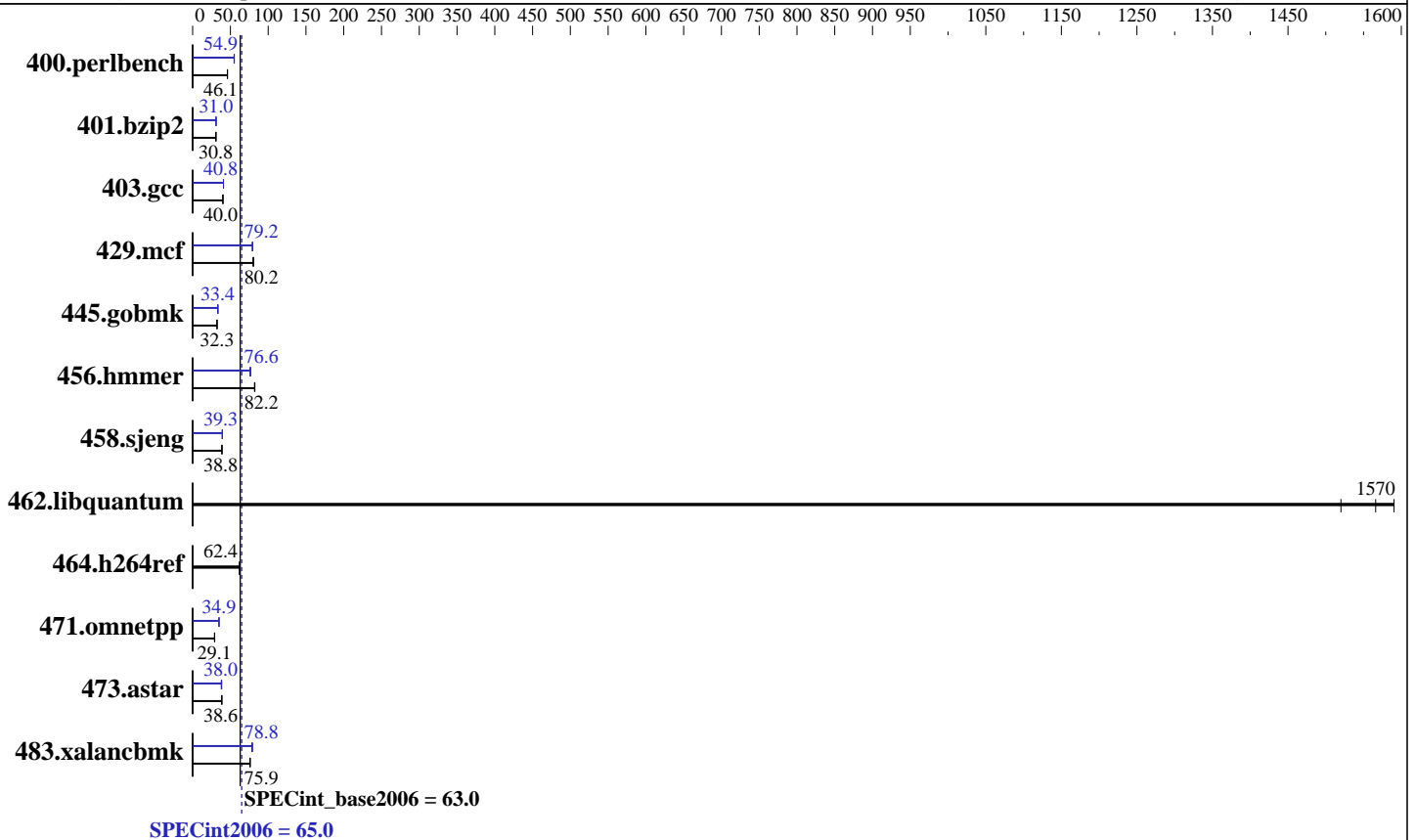$SPECint\_base2006 =$ 63.0

**CPU2006 license:** 001176
**Test sponsor:** Supermicro
**Tested by:** Supermicro

**Test date:** Jun-2014
**Hardware Availability:** May-2014
**Software Availability:** Nov-2013



400.perlbench  54.9 / 46.1
401.bzip2  31.0 / 30.8
403.gcc  40.8 / 40.0
429.mcf  79.2 / 80.2
445.gobmk  33.4 / 32.3
456.hmmer  76.6 / 82.2
458.sjeng  39.3 / 38.8
462.libquantum  1570
464.h264ref  62.4
471.omnetpp  34.9 / 29.1
473.astar  38.0 / 38.6
483.xalancbmk  78.8 / 75.9

SPECint_base2006 = 63.0

SPECint2006 = 65.0

## Hardware

CPU Name: Intel Xeon E3-1281 v3
CPU Characteristics: Intel Turbo Boost Technology up to 4.10 GHz
CPU MHz: 3700
FPU: Integrated
CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip, 2 threads/core
CPU(s) orderable: 1 chip
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core
L3 Cache: 8 MB I+D on chip per chip
Other Cache: None
Memory: 16 GB (2 x 8 GB 2Rx8 PC3-12800E-11, ECC)
Disk Subsystem: 1 x 500 GB SATA III, 7200 RPM
Other Hardware: None

## Software

Operating System: Red Hat Enterprise Linux Server release 6.5, Kernel 2.6.32-431.el6.x86_64
Compiler: C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux
Auto Parallel: Yes
File System: ext4
System State: Run level 3 (multi-user)
Base Pointers: 32/64-bit
Peak Pointers: 32/64-bit
Other Software: Microquill SmartHeap V10.0

# SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5038ML-H8TRF
(X10SLD-F single node, Intel Xeon E3-1281 v3)

$SPECint2006 = 65.0$

$SPECint\_base2006 = 63.0$

**CPU2006 license:** 001176
**Test sponsor:** Supermicro
**Tested by:** Supermicro

**Test date:** Jun-2014
**Hardware Availability:** May-2014
**Software Availability:** Nov-2013

## Results Table

| Benchmark | Base | | | | | | Peak | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 212 | 46.0 | 212 | 46.1 | **212** | **46.1** | 178 | 54.9 | 177 | 55.2 | **178** | **54.9** |
| 401.bzip2 | 313 | 30.8 | **313** | **30.8** | 313 | 30.8 | 311 | 31.0 | **311** | **31.0** | 311 | 31.1 |
| 403.gcc | 200 | 40.2 | 201 | 40.0 | **201** | **40.0** | 197 | 40.8 | 197 | 40.8 | **197** | **40.8** |
| 429.mcf | 113 | 80.7 | 114 | 80.1 | **114** | **80.2** | **115** | **79.2** | 115 | 79.5 | 116 | 78.9 |
| 445.gobmk | **325** | **32.3** | 325 | 32.3 | 326 | 32.2 | **314** | **33.4** | 314 | 33.4 | 314 | 33.4 |
| 456.hmmer | 114 | 81.9 | **113** | **82.2** | 113 | 82.4 | 122 | 76.8 | 123 | 76.0 | **122** | **76.6** |
| 458.sjeng | **312** | **38.8** | 312 | 38.8 | 312 | 38.8 | 308 | 39.3 | 309 | 39.2 | **308** | **39.3** |
| 462.libquantum | **13.2** | **1570** | 13.0 | 1590 | 13.6 | 1520 | **13.2** | **1570** | 13.0 | 1590 | 13.6 | 1520 |
| 464.h264ref | 358 | 61.9 | **355** | **62.4** | 355 | 62.4 | 358 | 61.9 | **355** | **62.4** | 355 | 62.4 |
| 471.omnetpp | 216 | 28.9 | 214 | 29.2 | **215** | **29.1** | **179** | **34.9** | 179 | 35.0 | 179 | 34.8 |
| 473.astar | **182** | **38.6** | 183 | 38.4 | 181 | 38.7 | 182 | 38.5 | **185** | **38.0** | 185 | 38.0 |
| 483.xalancbmk | 90.4 | 76.3 | **90.9** | **75.9** | 91.1 | 75.8 | 87.0 | 79.3 | **87.6** | **78.8** | 88.0 | 78.4 |

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

## Submit Notes

The config file option 'submit' was used.

## Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

## General Notes

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64:/home/cpu2006/sh"
OMP_NUM_THREADS = "4"

 Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
 memory using RedHat EL 6.4
 Transparent Huge Pages enabled with:
 echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
 runspec command invoked through numactl i.e.:
 numactl --interleave=all runspec <etc>

## Base Compiler Invocation

C benchmarks:
    icc -m64

# SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5038ML-H8TRF
(X10SLD-F single node, Intel Xeon E3-1281 v3)

SPECint2006 =    65.0

SPECint_base2006 =    63.0

| | |
|---|---|
| **CPU2006 license:** 001176 | **Test date:** Jun-2014 |
| **Test sponsor:** Supermicro | **Hardware Availability:** May-2014 |
| **Tested by:** Supermicro | **Software Availability:** Nov-2013 |

## Base Compiler Invocation (Continued)

C++ benchmarks:
    icpc -m64

## Base Portability Flags

        400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
            401.bzip2: -DSPEC_CPU_LP64
              403.gcc: -DSPEC_CPU_LP64
              429.mcf: -DSPEC_CPU_LP64
           445.gobmk: -DSPEC_CPU_LP64
           456.hmmer: -DSPEC_CPU_LP64
            458.sjeng: -DSPEC_CPU_LP64
      462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
          464.h264ref: -DSPEC_CPU_LP64
         471.omnetpp: -DSPEC_CPU_LP64
            473.astar: -DSPEC_CPU_LP64
      483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

## Base Optimization Flags

C benchmarks:
    -xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -auto-p32

C++ benchmarks:
    -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
    -Wl,-z,muldefs -L/sh -lsmartheap64

## Base Other Flags

C benchmarks:

        403.gcc: -Dalloca=_alloca

## Peak Compiler Invocation

C benchmarks (except as noted below):
    icc -m64

    400.perlbench: icc -m32

    445.gobmk: icc -m32

## Supermicro

SuperServer 5038ML-H8TRF
(X10SLD-F single node, Intel Xeon E3-1281 v3)

SPECint2006 =                65.0

SPECint_base2006 =           63.0

**CPU2006 license:** 001176

**Test sponsor:** Supermicro

**Tested by:** Supermicro

**Test date:** Jun-2014

**Hardware Availability:** May-2014

**Software Availability:** Nov-2013

# Peak Compiler Invocation (Continued)

C++ benchmarks (except as noted below):
```
icpc -m32
```

```
473.astar: icpc -m64
```

# Peak Portability Flags

```
400.perlbench: -DSPEC_CPU_LINUX_IA32
  401.bzip2: -DSPEC_CPU_LP64
    403.gcc: -DSPEC_CPU_LP64
    429.mcf: -DSPEC_CPU_LP64
 456.hmmer: -DSPEC_CPU_LP64
  458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
 464.h264ref: -DSPEC_CPU_LP64
   473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LINUX
```

# Peak Optimization Flags

C benchmarks:

```
400.perlbench: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
               -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
               -opt-prefetch -ansi-alias

  401.bzip2: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
             -O3(pass 2) -no-prec-div -prof-use(pass 2) -auto-ilp32
             -opt-prefetch -ansi-alias

    403.gcc: -xCORE-AVX2 -ipo -O3 -no-prec-div -inline-calloc
             -opt-malloc-options=3 -auto-ilp32

    429.mcf: -xCORE-AVX2 -ipo -O3 -no-prec-div -parallel
             -opt-prefetch -auto-p32

  445.gobmk: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
             -ansi-alias

  456.hmmer: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
             -ansi-alias

  458.sjeng: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
             -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
             -unroll4
```

## Supermicro

SuperServer 5038ML-H8TRF
(X10SLD-F single node, Intel Xeon E3-1281 v3)

$SPECint2006 =$ 65.0

$SPECint\_base2006 =$ 63.0

| | | | |
|---|---|---|---|
| **CPU2006 license:** 001176 | | **Test date:** | Jun-2014 |
| **Test sponsor:** | Supermicro | **Hardware Availability:** | May-2014 |
| **Tested by:** | Supermicro | **Software Availability:** | Nov-2013 |

# Peak Optimization Flags (Continued)

462.libquantum: basepeak = yes

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-ra-region-strategy=block            -ansi-alias
-Wl,-z,muldefs -L/sh -lsmartheap

473.astar: -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-auto-p32 -Wl,-z,muldefs -L/sh -lsmartheap64

483.xalancbmk: -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-ansi-alias -Wl,-z,muldefs -L/sh -lsmartheap

# Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.html
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revD.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.xml
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revD.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.
Report generated on Fri Jul 25 00:06:51 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on  1 July 2014.